0020

C0150032 Internal OK
CC: Karl

WATER QUALITY MEMORANDUM

Utah Coal Regulatory Program

April 16, 2004

TO: Internal File

THRU: Daron Haddock, Permit Supervisor DRH

FROM: Steve Fluke, Reclamation Hydrogeologist SRF

RE: 2003, Fourth Quarter Water Monitoring, Genwal Resources, Inc., Crandall Canyon Mine, C/015/0032-WQ03-4, Task ID #1851

1. Was data submitted for all of the MRP required sites? YES [X] NO [ ]

2. On what date does the MRP require a five-year resampling of baseline water data.

Resampling due date.

Sampling and analyses for baseline parameters (Tables 7-5 and 7-9 in the MRP) are to be performed during low-flow (fourth quarter) in 1990, 1995, 2000, and at five-year intervals thereafter until the surety bond is released. No baseline resampling data for 2000 has been submitted to the database. Gary Gray stated that the baseline resampling was conducted in 2000 but has not been input to the database. He plans to find and input the data. The next baseline resampling is scheduled for 2005.

3. Were all required parameters reported for each site? YES [X] NO [ ]

4. Were irregularities found in the data? YES [X] NO [ ]

Spring SP-36: reported concentrations of dissolved calcium and magnesium are historically high (and outside the two standard deviation range) at 65.6 mg/L and 48.8 mg/L, respectively.

Spring SP1-33: the reported concentration of sulfate at 29 mg/L is historically high (and outside the two standard deviation range).

Spring SP1-9: the reported concentration of TDS at 254 mg/L is historically high (and outside the two standard deviation range).

Spring SP2-9: the reported concentration of TDS at 212 mg/L is historically high (and outside the two standard deviation range).

Historical data indicate that total dissolved solids, specific conductivity, and sulfate concentrations for the Lower and Upper Crandall Flumes show an increasing trend since approximately 2000. It is believed that these increasing constituents are due to the ongoing drought.

5. Were DMR forms submitted for all required sites?

1st month, YES [X] NO [ ]
2nd month, YES [X] NO [ ]
3rd month, YES [X] NO [ ]

DMR data is submitted to the DOGM database. No flow was reported for UPDES site 001 (discharge from the sediment pond to Crandall Creek). Reported data for UPDES site 002 is still in the database "pipeline" due to errors resulting from missing data in June, July, August, and September. The data will be released for download to the database at Gary Gray's request.

6. Were all required DMR parameters reported? YES [ ] NO [X]

Missing July and September oil and grease data for UPDES site 002.

7. Were irregularities found in the DMR data? YES [ ] NO [X]

8. Based on your review, what further actions, if any, do you recommend?

Continue to monitor for trends the listed sites with parameter concentrations outside of the two standard deviation range. None of the parameter concentrations for the sites listed above exceed regulatory standards or are indicative of diminished water quality on their own.

Gary Gray was not aware that the UPDES sites are to be analyzed for oil and grease on a monthly basis as stated in their permit. He has been analyzing for oil and grease on a quarterly basis or if a sheen is observed as specified in their original permit. Gary will begin analyzing for

oil and grease on a monthly basis now that he is aware of the omission. Oil and grease concentrations have not exceeded the discharge limitation of 10 mg/L at this outfall in the past.

Continue to monitor the trends of increasing constituent in Upper and Lower Crandall Flume data. Determine whether these trends appear to be due to the ongoing drought or mining related.

Make sure that the baseline resampling data for 2000 is input to the database.

O:\015032.CRA\WATER QUALITY\SMF_WQ03-4.DOC